

Coaxial Switch

NON-CATALOG

ZYSWA-2-50DR

50Ω SPDT, TTL Driver, Absorptive DC² to 5 GHz

Maximum Ratings

Operating Temperature	-20°C to 85°C
Storage Temperature	-55°C to 100°C
Input Power	+20dBm
Permanent damage may occur if any of these limits are exceeded.	

Coaxial/Pin Connections

RF IN	3
RF OUT 1	2
RF OUT 2	1
TTL IN	4
+5V	+5VDC
-5V	-5VDC

Features

- wideband, DC to 5 GHz
- fast rise/fall time, 6ns typ.
- low video break thru, 30 mV P-P typ.

Applications

- antenna switching
- instrumentation
- cellular/PCN
- transmitters/receivers
- satellite communications



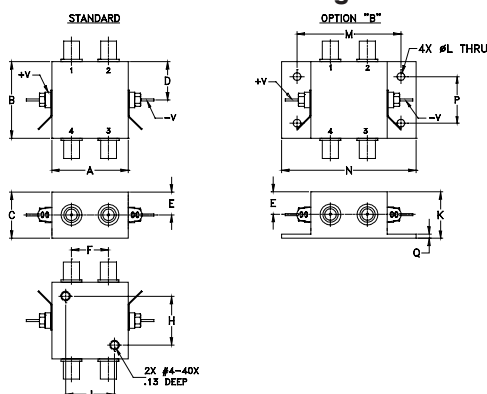
CASE STYLE: ZZ121

Connectors	Model
SMA	ZYSWA-2-50DR
BRACKET (OPTION "B")	

Electrical Specifications

FREQ. ² (GHz)		INSERTION LOSS (dB)						1dB COMPR. (dBm)						IN-OUT ISOLATION (dB)					
		DC-500 MHz		500-2000 MHz		2000-5000 MHz		DC-500 MHz		500-2000 MHz		2000-5000 MHz		DC-500 MHz		500-2000 MHz		2000-5000 MHz	
f _L	f _U	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
DC	5	1.1	1.5	1.4	1.9	1.9	—	18	13	20	17	22.5	20	42	38	31	27	20	19

Outline Drawing



Outline Dimensions (inch/mm)

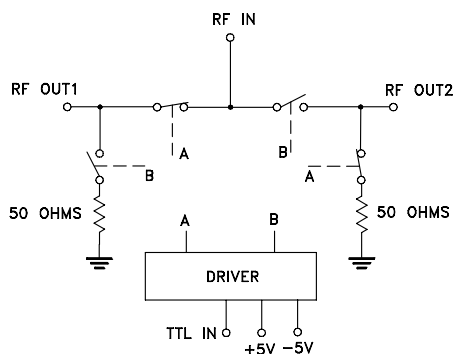
A	B	C	D	E	F	G	
1.25	1.25	0.75	0.63	0.38	0.61	--	0.1
31.75	31.75	19.05	16.00	9.65	15.49	--	2.54
J	K	L	M	N	P	Q	grd
0.800	0.76	0.125	1.688	2.18	0.75	0.07	
20.32	19.30	3.18	42.88	55.37	19.05	1.78	

Additional Specifications			
Control Voltage	0/5.5, max.	VSWR:(1)	1.4 typ., 2.0 max. DC to 3 GHz
Low Threshold, max.	0.8	Rise/Fall time (10%-90%), ns Switching time, 50% of Control to 90% RF (Turn-on), ns 10% RF (Turn-off), ns	2.5 max. 3 to 5 GHz
High Threshold, min.	2.0		
Control Current, mA	High V: 2 typ., 5 max. Low V: 0.2 max.		6 typ., 12 max.
Positive Supply, V	+5+0.5/-0.1		20 typ., 40 max.
Negative Supply, V	-5-0.5/+0.1		
Positive Supply Current, mA	20 max.	**Video Leakage, mVp-p 0/-5V Control	30 typ.
Negative Supply Current, mA	20 max.		

1. OFF state at RF output is low impedance
 ** Video leakage or break through is defined as leakage of TTL switching signal to RF output ports.
 2. All RF connections must be DC blocked or held at 0V DC

Control Port	RF outputs	
	1	2
Low	On	Off
High	Off	On

Electrical Schematic



Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
 B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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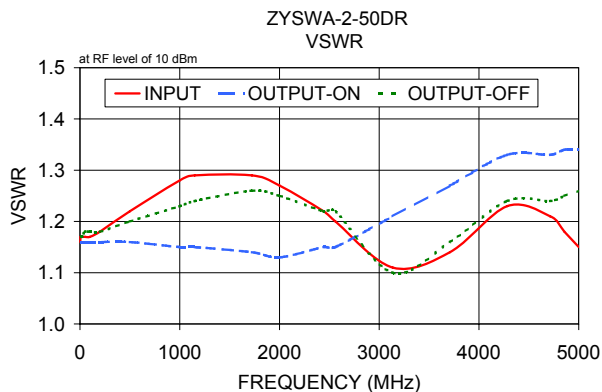
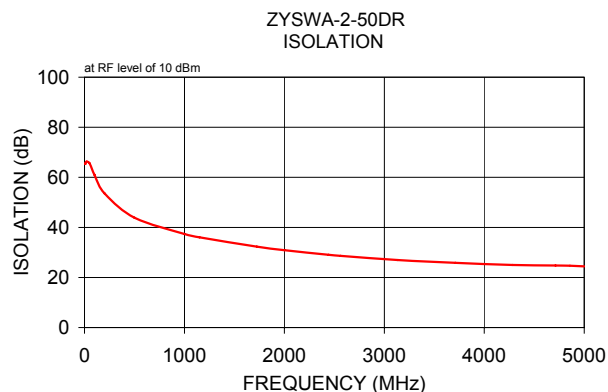
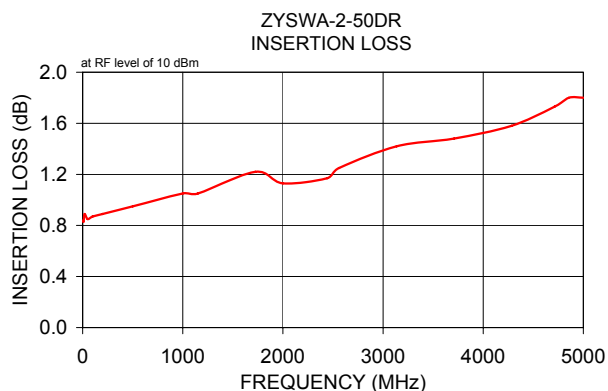


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REV. E
 M158359
 ZYSWA-2-50DR
 ED-6966/2
 DJ/TD/CP/AM
 170111

Typical Performance Data

FREQ. (MHz)	ON TTL Low @ 0V) IN-OUT 1		INSERTION LOSS (dB)		OFF TTL High @ 5V) IN-OUT 1		ISOLATION (dB)		VSWR		
			AMP. UNBAL.				DELTA		IN	OUT	OFF
	$\bar{x}$	σ	$\bar{x}$	σ	$\bar{x}$	σ	$\bar{x}$	σ			
3.00	0.84	0.01	0.01	0.01	65.32	0.46	0.44	0.35	1.16	1.16	1.17
5.00	0.83	0.01	0.01	0.01	65.59	1.00	0.97	0.43	1.17	1.16	1.17
10.00	0.83	0.02	0.01	0.01	65.42	0.63	0.56	0.20	1.17	1.16	1.17
20.00	0.89	0.04	0.02	0.02	66.30	0.68	0.76	0.63	1.17	1.16	1.17
50.00	0.85	0.01	0.01	0.01	65.63	1.12	1.37	0.50	1.17	1.16	1.18
100.00	0.87	0.02	0.01	0.01	61.02	0.81	1.22	1.06	1.17	1.16	1.18
200.00	0.89	0.02	0.01	0.01	53.60	0.42	0.37	0.32	1.18	1.16	1.18
500.00	0.95	0.02	0.00	0.01	43.89	0.27	0.52	0.15	1.22	1.16	1.20
1000.00	1.05	0.02	0.01	0.01	37.39	0.23	0.62	0.12	1.28	1.15	1.23
1150.64	1.05	0.02	0.01	0.01	36.05	0.25	0.62	0.11	1.29	1.15	1.24
1724.45	1.22	0.02	0.04	0.02	32.34	0.30	0.73	0.08	1.29	1.14	1.26
2000.00	1.13	0.01	0.01	0.01	30.92	0.28	0.76	0.06	1.27	1.13	1.25
2441.73	1.17	0.01	0.01	0.01	29.06	0.27	0.69	0.11	1.22	1.15	1.22
2561.27	1.25	0.03	0.02	0.01	28.66	0.27	0.62	0.15	1.20	1.15	1.22
3135.09	1.42	0.05	0.06	0.00	26.96	0.30	0.23	0.14	1.11	1.21	1.10
3708.91	1.48	0.04	0.06	0.02	25.86	0.28	0.33	0.18	1.14	1.27	1.16
4282.73	1.58	0.06	0.12	0.04	25.02	0.36	0.41	0.23	1.23	1.33	1.24
4713.09	1.73	0.05	0.02	0.01	24.78	0.31	0.62	0.26	1.21	1.33	1.24
4856.55	1.80	0.05	0.03	0.02	24.69	0.32	0.65	0.26	1.18	1.34	1.25
5000.00	1.80	0.06	0.04	0.02	24.46	0.30	0.58	0.26	1.15	1.34	1.26



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